



**BioSPX**  
*A new focus on life science*

# Flow Cytometry



# Flow cytometers to advance your research and increase your productivity

Flow Cytometry is a powerful technique used to quantitatively measure individual cells and other particles in suspension, at the rate of thousands of cells per second. Most commonly used in the context of Immunology, we have also started to see the adaptation of flow cytometry for environmental studies, extracellular vesicle analysis, and the ability to use up to 30+ different parameters for more comprehensive analysis.

## Flow Cytometry for research with the NovoCyte systems

The NovoCyte flow cytometer system is a high-performance benchtop flow cytometer designed for all levels of users and all types of laboratories. The customizable laser and optical configuration of the NovoCyte systems offers a high degree of flexibility while providing complex cell analysis capabilities.

The NovoExpress® software enables intuitive and easy sample acquisition and analysis. It allows simultaneous sample acquisition and data analysis. The NovoSampler® Pro is an optional high throughput system that provides versatility in acquiring multiple sample formats such as single tubes, multiple tubes, 24-, 48-, 96-well plates in a single, simple setup.

**POWERFUL**  
**INTUITIVE**  
**CUSTOMIZABLE**



# Flow cytometers overview



## NovoCytte Opteon Spectral Flow Cytometer Systems 3-5 Lasers

- Up to 5 lasers, 73 high-quality detectors
- Demonstrated panel of 45 colors
- Data with high sensitivity and high resolution due to an innovative optical design



## NovoCytte Penteon Flow Cytometer Systems 5 Lasers

- 5 lasers (VBYSR + UV)
- siPM
- Up to 100.000 evts/sec
- Up to 32 parameters
- SSC resolution down to 0.1  $\mu\text{m}$



## NovoCytte Quanteon Flow Cytometer Systems 4 Lasers

- 4 lasers (VBYSR)
- siPM
- Up to 100.000 evts/sec
- Up to 27 parameters
- SSC resolution down to 0.1  $\mu\text{m}$



## NovoCytte Advanteon Flow Cytometer Systems 1-3 Lasers

- 1 to 3 lasers
- siPM
- Up to 100.000 evts/sec
- Up to 23 parameters
- SSC resolution down to 0.1  $\mu\text{m}$



## NovoCytte Flow Cytometer Systems 1-3 Lasers

- 1 to 3 lasers
- PMT
- Up to 35 000 evts/sec
- Up to 17 parameters

# Automation capabilities for flow cytometry

## High-throughput capability with NovoSampler Q.

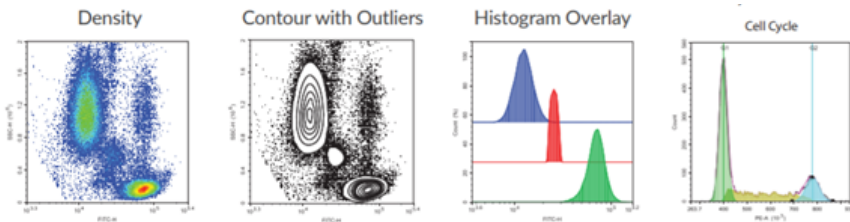
NovoSampler Q is an automatic sample loading system to fulfill such requirements for high-throughput and automated sample acquisition. The NovoSampler Q seamlessly integrates with the NovoCyte flow cytometers, allowing for easy operation and processing of multiple samples and for high performance data.

- Walk-away automation and increased productivity.
- Maintains homogeneity and integrity of biological samples.
- Simple installation, easy operation, and superior performance.
- Programmable vortex-mixing mechanism.
- Compatible with various sample formats:
  - 96 and 384 well plate (U, V, flat bottom)
  - 48 well plate
  - 24 well plate
  - 24 ad 40 tube rack
  - Customized plates, tubes, racks



## The NovoExpress Experience: Simple and easy Automated & versatile analysis functions.

Powerful NovoExpress software allows efficient data acquisition, data analysis and report generation. NovoExpress provides flexible analysis templates and plotting tools, offering enhanced data analysis efficiency.



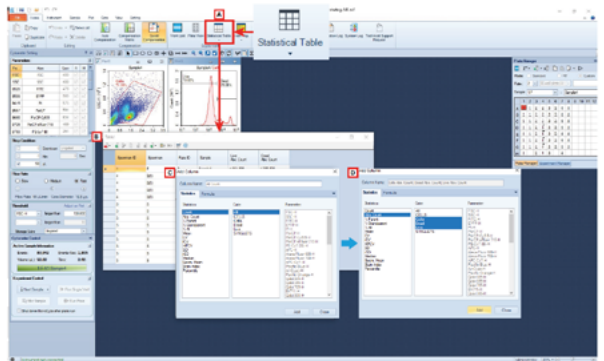
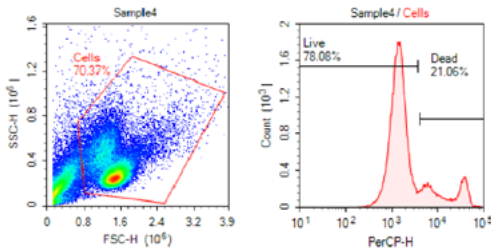
## Automatic fluidic monitoring and maintenance.

Adding to the user-friendliness of the NovoCyte systems is the automatic fluidic monitoring station and easy to use maintenance icons. There is no need to manually check whether the cleaning or the sheath fluids are low, or the waste container is full, these levels are automatically monitored, and the system will notify the user when action is required. Similarly, routine fluidic cleaning and maintenance procedures can be accessed within the NovoExpress software with a simple click of the icon.

## Absolute cell count

Absolute cell counting can enhance cell proliferation analysis by obtaining the total increase in cell number over the course of an experiment, which better determines how well cells are growing. Using an instrument with cell counting capabilities offers a look at total number of cells—in addition to looking at number of divisions—for more information per run.

The Novocyte systems have a syringe driven pump for sampling, this makes it possible to determine absolute cell count for every run without fluidic fluctuations throughout the course of the sample run. While many cytometers cannot determine the absolute cell count without the use of reference beads, direct cell count is available on all our flow cytometers.



## Detection: The silicon photomultiplier delivers photon-level sensitivity

Silicon photomultipliers (SiPM) are solid-state, semiconductor devices. With a compact array of avalanche photodiodes operating in unison, the innovative optical design within the NovoCyte systems, collect light on each and every channel, with sensitivities that far exceed the traditional PMTs.

### Advantages of SiPM

- Superior photon detection sensitivity
- High gain and high quantum efficiency
- Instantaneous warm-up and fast response
- Robust and long lifespan
- High durability

## Who we are

We are a BeNeLux organization with offices in Abcoude and Brussels and we serve people who work in fields such as academic research laboratories, Biotech, Pharma, Research & Development, Agricultural Technology and Food & Feed.

BioSPX is a 100%-daughter company of Beun-De Ronde BV, supplier of laboratory instruments in The Netherlands and Belgium since 1921. Thanks to a renewed focus and approach, BioSPX has acquired a leading position in Life Science. As an independent supplier of instruments such as microplate washers and dispensers, (multimode) readers, imaging and microscopy techniques, liquid handling, and peptide synthesis, we assist our customers in making the right choices for the present and the future.

Our drive; **“A new focus on Life Science”**

Our approach; **“Excellence in advising and supporting”**

## Our support & service

Every day our specialists support our customers on site. Whether it concerns advice, training, application support, preventive or corrective maintenance, we demonstrate our expertise to our customers on a daily basis.

Everything we do is all about continuity. For our customers, for our suppliers and for all our stakeholders. We ensure a continuous operation of your laboratory equipment by providing a complete package of technical and application services, quality products and skilled technical support.

- Preventive maintenances with or without service contract
- Technical support (hardware & software)
- IQPQQQ + reporting
- Validation & Calibration services
- All types of service contracts
- Remote & application support
- Demo and applications lab
- Tailor-made installations of new equipment & training
- Upgrades of existing equipment

## The brands we represent



Agilent is growing in the cell analysis space and is becoming a market leader with its set of innovative tools including ACEA Biosciences and BioTek Instruments – providing customers the tools they need to uncover unique cell biology, discover novel drug targets, improve preclinical in vitro toxicology, and pioneer the next generation of immunotherapies.



Cellexus pioneers revolutionary, market leading single-use airlift bioreactor systems and technology. With an in-house Research & Development team, Cellexus is always innovating!



Uvitec Ltd. is a leading molecular biology imaging systems manufacturer. Keeping at the leading edge of imaging and documentation systems for a wide range of highly-demanding applications including Chemiluminescence and Spectral Fluorescence, through state-of-the-art camera technology and optical innovations.



CEM is a global leader in peptide synthesis and custom peptide production, equipping researchers and academic professionals with the power to use microwave laboratory instrumentation to succeed and surpass their research goals.



Curiosis Inc, develops, produces, and supplies laboratory equipment in the field of life science.

Based on their core technologies in mechanical engineering, biophysics, and electrical engineering, Curiosis aims to provide high-quality products as well as contribute towards a better future for humanity.



Sartorius, empowers scientists and engineers to simplify and accelerate progress in life science and bioprocessing, enabling, among other, the development of new and better therapies.





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